

Message

From: Brasaemle, Karla [Karla.Brasaemle@TechLawInc.com]
Sent: 9/8/2017 4:47:56 PM
To: d'Almeida, Carolyn K. [dAlmeida.Carolyn@epa.gov]; Dan Pope [DPope@css-inc.com]; Davis, Eva [Davis.Eva@epa.gov]; Henning, Loren [Henning.Loren@epa.gov]; Wayne Miller [Miller.Wayne@azdeq.gov]; Jennings, Eleanor [Eleanor.Jennings@parsons.com]; Eleanor Jennings [ejennings@teci.pro]; Cosler, Doug [Doug.Cosler@TechLawInc.com]
CC: Fairbanks, Brianna [Fairbanks.Brianna@epa.gov]; Goers, Nicole [Nicole.Goers@TechLawInc.com]
Subject: RE: Final WAFB ST012 letter 090517.docx - how many monitoring wells

We identified the lack of wells in the "treatment ovals" and stated that at least one monitoring well per oval was needed, but did not specify the number of wells or the locations. This proposes one well per oval. This was included in the checklist – but was ignored.

Also, because Addendum #2 says they will turn off the extraction wells when sulfate gets there, I included a few downgradient monitoring wells in the cases where there are upgradient extraction wells and downgradient injection wells or a cross-gradient pair at the downgradient edge of the treatment wells. (i.e., once they turn off the extraction wells, all injected sulfate will be transported in the natural groundwater flow direction – downgradient).

One alternative we could offer them is that if they revise the proposed extraction and injection well locations to ONLY include upgradient injection and downgradient extraction, with only one or two injection wells per extraction well, we might not need as many monitoring wells. However, when there are as many as 3 or 4 injection wells located in an arc around an extraction well (with distances between injection and extraction wells of as much as 265 feet – e.g., in the LSZ), it will be impossible to understand if sulfate is distributed throughout the area without enough monitoring wells.

Karla Brasaemle, P.G.
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From: d'Almeida, Carolyn K. [mailto:dAlmeida.Carolyn@epa.gov]
Sent: Friday, September 08, 2017 9:37 AM
To: Brasaemle, Karla; Dan Pope; Davis, Eva; Henning, Loren; Wayne Miller; Jennings, Eleanor; Eleanor Jennings; Cosler, Doug
Cc: Fairbanks, Brianna; Goers, Nicole
Subject: RE: Final WAFB ST012 letter 090517.docx - how many monitoring wells

Karla

Were all of these 36 wells identified in our previous comment letter?

Carolyn d'Almeida
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"Because a waste is a terrible thing to mind..."

From: Brasaemle, Karla [mailto:Karla.Brasaemle@TechLawInc.com]
Sent: Thursday, September 7, 2017 8:40 AM
To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Dan Pope <DPope@css-inc.com>; Davis, Eva <Davis.Eva@epa.gov>; Henning, Loren <Henning.Loren@epa.gov>; Wayne Miller <Miller.Wayne@azdeq.gov>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Eleanor Jennings <ejennings@teci.pro>; Cosler, Doug

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Cc: Fairbanks, Brianna <Fairbanks.Brianna@epa.gov>; Goers, Nicole <Nicole.Goers@TechLawInc.com>

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Please see the attached for the number of needed monitoring wells (36) and rationale for each well. I analyzed Table 4-1 and Figures 3-2 through 3-4 from Addendum #2.

There is also general rationale at the end.

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From: d'Almeida, Carolyn K. [mailto:dAlmeida.Carolyn@epa.gov]

Sent: Thursday, September 7, 2017 8:30 AM

To: Dan Pope <DPope@css-inc.com>; Davis, Eva <Davis.Eva@epa.gov>; Henning, Loren <Henning.Loren@epa.gov>; Wayne Miller <Miller.Wayne@azdeq.gov>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Eleanor Jennings <ejennings@teci.pro>; Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>; Cosler, Doug <Doug.Cosler@TechLawInc.com>

Cc: Fairbanks, Brianna <Fairbanks.Brianna@epa.gov>

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I would add:

5) provide predictive modeling with verifiable assumptions that will enable the progress of the remedy to be evaluated.

But I agree that getting the data is most essential because at least then we could do our own modeling if need be.

Carolyn d'Almeida
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"Because a waste is a terrible thing to mind..."

From: Dan Pope [mailto:DPope@css-inc.com]

Sent: Thursday, September 7, 2017 6:58 AM

To: Davis, Eva <Davis.Eva@epa.gov>; Henning, Loren <Henning.Loren@epa.gov>; d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Wayne Miller <Miller.Wayne@azdeq.gov>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Eleanor Jennings <ejennings@teci.pro>; Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>; Cosler, Doug <Doug.Cosler@TechLawInc.com>

Cc: Fairbanks, Brianna <Fairbanks.Brianna@epa.gov>

Subject: RE: Final WAFB ST012 letter 090517.docx

I like Eva's approach. Note that the things I emailed (Tue 9/5/2017 3:00 PM) from my previous reviews were very general so they probably are not the best basis for the type of specific list we're looking for. I think we need very specific requirements that we can specifically defend. That is, not just "this is a good thing to do" but "this is a thing that must be done because the remedy cannot succeed without this" or "this thing must be done because we will have no idea how well the remedy is doing without this".

If I had to choose only one item for the list, one thing I think that we really must have to determine how well the remedy is doing is sampling/analyzing LNAPL sitewide to determine COC depletion. AF/AMEC are pushing EBR/MNA as a remedy for the site including remediation of the LNAPL, so they must be able to show that the LNAPL is actually being remediated (i.e., not just analyze groundwater as an indirect measure of what's happening with COCs in the LNAPL). See Eva's comment on Item #3 of the proposed letter (*Final WAFB ST012 letter 090517 Eva.docx*).

Also, I think that Brianna's framing was pretty good...

I framed the main flaws of the workplan this way, based on my prior discussions with the team and from looking through our comment letters:

"The Regulatory Agencies' position is that this work plan fails to:

(1) adequately characterize the Site, including the extent of benzene contamination and the remaining volume of LNAPL in the groundwater;

(2) demonstrate that EBR implementation as planned will achieve remedial goals by the timeframe set forth in the Final Record of Decision Amendment 2 (RODA 2), Groundwater, Operable Unit 2, September 9, 2013;

(3) set forth a monitoring plan and remedy success criteria necessary to evaluate the success of the remedy following implementation; and

(4) adequately ensure that the plume of contaminated groundwater is controlled and that downstream drinking water sources are protected."

From: Davis, Eva [<mailto:Davis.Eva@epa.gov>]

Sent: Wednesday, September 06, 2017 4:25 PM

To: Henning, Loren; d'Almeida, Carolyn K.; Dan Pope; Wayne Miller; Jennings, Eleanor; Eleanor Jennings; Brasaemle, Karla; Cosler, Doug

Cc: Fairbanks, Brianna

Subject: RE: Final WAFB ST012 letter 090517.docx

I added a couple more things – language needs to be cleaned up

From: Henning, Loren

Sent: Tuesday, September 05, 2017 5:48 PM

To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Davis, Eva <Davis.Eva@epa.gov>; Dan Pope <DPope@css-inc.com>; Wayne Miller <Miller.Wayne@azdeg.gov>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Eleanor Jennings <ejennings@teci.pro>; Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>; Cosler, Doug <Doug.Cosler@TechLawInc.com>

Cc: Fairbanks, Brianna <Fairbanks.Brianna@epa.gov>

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I took a stab at the kind of letter we are at the point of having to send. We can't go back and forth about what hasn't been addressed from our comments. If we (the regulatory Agencies) are going to approve the AF implementing EBR then there are some things they must do to receive our approval. I pieced together a few items from Dan's email and Carolyn's email. Please edit by adding specific and vitally necessary requirements within the next three years that the AF must do. If they do not agree, we go to dispute.

It would be great to have this letter mostly drafted and a briefing drafted by Thursday. We will likely need a couple more weeks to get back to the AF on the review of the document, Carolyn, you should talk to Cathy and see if that will be an issue. I think we're supposed to formally respond by this Friday.

Loren

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